FORM MR-1
(Revised November 1984)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
Telephone: (801) 538-5340

RECEIVED
JUN 21 1985
DIVISION OF OIL
GAS & MINING

NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS and MINING AND RECLAMATION PLAN

Based on Provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Regulations and Rules of Practice and Procedures, By Order of the Board of Oil, Gas and Mining.

Mine Name: Silver Reef Mine Plan Date: April 26, 1985

File No.: ACT/053/022 Date Received: _____

Operator: Kerley Industries DOGM Lead Reviewer: _____

Mineral(s) to be Mined: Silver, Copper

Please attach other sheets as needed and include cross-reference page numbers when used.

1. Name of Applicant or Company: Kerley Industries,Inc.
   Corporation (X) Partnership ( ) Individual ( )

2. Address: Permanent: Mine & Mill Engineering, Inc/Kerley Industries
   1675 Larimer Street Suite 800 Denver, CO 80202
   Temporary: _____

3. Company Representative: Name: Howard T. Urband
   Title: Chief Geologist
   Address: SAME AS ABOVE Phone: 303-820-2222

4. Location of Operation: County(ies) Washington
   Township(s): 41S Range(s): 13W Section(s): 6 & 7
   Township(s): 41S Range(s): 14W Section(s): 1, 11, 12, 13,14
   Township(s): _____ Range(s): _____ Section(s): _____

5. Owner(s) of record of the surface area within the land to be affected:

Name: 5M Corporation Address: P.O. box 752, Hurricane, Ut 84737
Name: _____ Address: _____
Name: Lawrence McMullen Address: Leeds, Utah
Name: _____ Address: _____

6. Owner(s) of record of the minerals to be mined:

Name:	5M, Inc.	Address:	P.O. Box 752, Hurricane, Utah 84737
Name:		Address:	
Name:	Lawrence McMullen	Address:	Leeds, Utah
Name:	Nicks Scholzen	Address:	Hurricane, Utah

7. Owner(s) of record of all other minerals, including oil and gas, within any part of the land to be affected:

Name:	5M, Inc.	Address:	Same as above
Name:	Lawrence McMullen	Address:	Same as above
Name:		Address:	

8. Have the above owners been notified in writing? (X) Yes, ( ) No. If no, why not? _____

9. Have you or any other person, partnership or corporation associated with you received an approval of a Notice of Intention to Commence Mining Operations by the State of Utah for operations other than described herein? ( ) Yes, (X) No. If yes, list all approval numbers now under surety:

_____ _____ _____
_____ _____ _____
_____ _____ _____

10. Source of Operator's legal right to enter and conduct operations on the land to be covered by this Notice:

Lease/Option Agreement

11. Give the names and mailing addresses of every principal Executive, Office, Partner (or person performing a similar function) of Applicant:

	Name	Title	Address
A.	Kerley Industries, Inc	Only	
B.			
C.			
D.			

12. Has the Applicant, any subsidiary or affiliate or any person, partnership, association, trust or corporation controlled by or under common control with the Applicant, or any person required to be identified by Item 11 ever had an approval of a Notice of Intention to Mine or Explore withdrawn or has surety relating thereto ever been forfeited? ( ) Yes, (X) No.

    If yes, please explain: _____

    _____

    _____

    _____

    _____

    _____

Please note: Section 40-8-13 of the Act provides that information relating to the location, size or nature of the deposit, and marked confidential by the Operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the Operator, or until the mining operation has been terminated as provided in Subsection (2) of Section 40-8-21 of the Act. This material should be so marked and included on separate cross-referenced sheets.

13. All maps and plans prepared for submission shall be of adequate scale and detail to show topographic features and clearly indicate the following details:

    A. Location and delineation of the extent of the land previously affected, as well as the proposed surface disturbance.
    B. Existing active or inactive, underground or surface mined areas.
    C. Boundaries of surface properties, including ownership.
    D. Names and locations of:
        (1) Lakes, rivers, streams, creeks and springs.
        (2) Roads, highways and buildings.
        (3) Active or abandoned facilities.
        (4) Transmission lines within 500 feet of the exterior limits of land affected.
        (5) Gas and/or oil pipelines.
        (6) Site elevation.
    E. Drainage patterns of land affected:
        (1) Overburden or topsoil removal and storage areas.
        (2) Areas susceptible to erosion.
        (3) Natural waterways.
        (4) Constructed drainages, diversions, berms and sediment ponds (design calculations shall be included).
        (5) Receiving waters (State Health classification).
        (6) Directional flow of all surface waters (indicated by arrows).
    F. Known drill holes:
        (1) Location.
        (2) Status.

(3) Depths and thicknesses of:*
   a. Water bearing strata.
   b. Mineral deposits.
   c. Toxic or potentially toxic materials.
   d. Surficial or plant supporting material (topsoil and subsoil). (Top soil is extremely thin or missing in most of The Silver Reef area)

G. Locations of disposal and stockpile areas:
   (1) Topsoil and subsoil storage areas.
   (2) Overburden storage area.
   (3) Waste, tailings, rejected materials.
   (4) Raw ore stockpile(s).
   (5) Tailings-ponds and other sediment control structures.
   (6) Discharge points, water effluents (see #15[D]).

All maps should have a color code or other suitable legend used in preparation to clearly indicate surface features of the land affected. A general reference map completed on a 7.5 (1:24,000) USGS quadrangle sheet is recommended with additional large scale maps included for practical delineation of individual facilites, (e.g., 1:200, 1:500).

14. Acreage to be disturbed: Data not yet available

   A. Minesite (operating, storage, disposal areas, etc.): _____
   B. Access/haul roads/conveyors: _____
   C. Associated on-site processing facilities: _____

15. Describe mining method to be employed, including: Data not yet available.

   A. Mining sequence:
      (1) Map delineating the yearly sequential disturbance (if surface mine) and/or surficial disturbance.
      (2) Narrative (including on-site processing or mineral treatment):
      Open pit mining is anticipated; location and size of pits will depend on future drilling results. Preliminary metallurgical data suggests that heap leaching will most likely be the most economically advantageous method. Actual Flowsheet will be developed as new metallurgical data is obtained.

      (See attached narrative)

      Attach supplemental sheets and/or diagrams as necessary with cross reference to page number here: _____.

*Stratigraphic or lithologic logs if correlated to footage depths may be presented when labeled (maps or logs should be labeled confidential, if so desired).

B. If sedimentary deposit seam(s):
(1) Thickness(es): See seam thicknesses, Exhibit H
(2) Dip: Various
(3) Outcrop: Along Silver Reef and Tecumseh Hill

C. Will any underground workings or aquifers be encountered? (X) Yes, ( ) No. If yes, describe potential impacts and protection measures to be taken: Old underground workings will be encountered during open pitting. Old workings are dry. No aquifers will be encountered during initial pitting.

D. Describe any active discharge or proposed discharge of water from mine or site area. Include water quality data and lab test reports. If attached sheets or reports are included, cross reference to page number here: _____.
Some ground water may be encountered as pitting becomes deeper, as such waters are encountered, water quality data will be collected.

16. Have all necessary water rights been appropriated? (X) Yes, ( ) No. How will water be obtained? Please explain: 80 GPM from primary right, Leeds Irrigation Company;excess water in old underground workings if and when encountered will Also be used as process water.

17. Proposed or estimated duration of mining operation: +5 years
Will the permit term be for a lesser amount of time, subject to review? (e.g., for surety estimate reasons). ( ) Yes, ( ) No. If yes, how long?
N/A

18. Describe the construction and maintenance of access roads including:
A. Procedures (drainage and erosion control methods).
B. Cross section(s).
C. Profile(s) of proposed road grade(s).

No new roads are anticipated at this time. As new roads may be required they will be built inaccordance with drawing 6, included herewith as Exhibit L.
They will be maintained with bulldozers, motor graders, etc. to insure that roads remain open during inclement weather, crushed stone will be used as a base. In dry weather road will be sprayed periodically to prevent excessive dust. Ditching will be maintained to prevent erosion and/or washouts.

Attach supplemental diagrams and cross reference to page number here: _____.

19. Prior land use(s): Mining
Current land use(s): Mining exploration/developement
Possible projected or prospective future land use(s): Mining

20. Describe methods of tree and brush removal: Vegitation is sparse in the mineralized areas; top soil is virtually non-existent. Areas to be mined or otherwise disturbed will include patented ground only, and will be stripped with excavation equipment. Storage of top soil will take place if it can be separated and mined separately.
Provide estimate of, and method of obtaining existing vegetation cover (%):
By visual examination , 10%

What types of dominant vegetation are present? Cacti, Chapparal, very sparce juniper, grass, sagebrush

Photographs and/or maps may be attached to these forms, cross reference to page number here: _____.

21. Soils (surficial plant supportive material) and overburden: Except where slope or rocky terrain make it impossible, all surficial materials suitable as a growth medium shall be removed, segregated and stockpiled according to its ability to support vegetation (as determined by soil analysis and/or practial revegetation experience) prior to any major excavation. (Suggested minimum requirements are the top six inches, or the "A" horizon, whichever is larger.)

A. What is the pH range of the soil before mining? 8.5-7.0
Name of person or agency and method of determining pH: Dean Paul Proctor, Utah Geological & Mineralogical Survey Bul-44
Attach lab report if available. Cross reference page number here: None available

B. Average depth of topsoil and subsoil to be stripped and stockpiled: See below . Calculated volume of soil to be stockpiled: _____.

C. Describe the method for removing and stockpiling topsoil and subsoil, including measures to protect topsoil from wind and water erosion, compaction and pollutants:
See below and accompanying narrative.

D. Describe the method for removing and stockpiling overburden.
Describe and discuss the acidity or alkalinity (pH) or other characteristics which would affect revegetation:
See belwo and accompanying narrative.

Exact area to be mined will be determined by future exploration and developmental work. Generally, it can be said that the area to be mined consists of actively eroding hill slope with very little soil cover.

E. Rock subjected to processing such as waste rock, tailings, etc., and which is to be disposed of on- or off-site must be subjected to a toxicity analysis. The method of determination, results and suitable disposal methods must be explained in detail, including means for containment and long range stability*: Two types of rock will be mined. (1) overburden and inner burden will be dumped. Lab tests will be conducted to determine the quality of water that soaks through it simulating normal percipitation in order to demonstrate that no toxic materials will be generated (2) ore will be placed on pads and leached. Following recovery of copper and silver, heaps will be flushed with clear water until acceptible water quality is achieved.

22. Describe the methods used to minimize public safety and welfare hazards during and after mining operations including:

A. Shaft, tunnel and drill hole closure.
B. Disposal of trash, scrap metal and wood and extraneous debris, waste oil and solvents, unusable buildings and foundations, sewage and other materials incident to mining.
C. Posting of appropriate warning signs and/or fences or berms to act as barriers (e.g., above highwalls) in locations where public access is available.
D. The proposed operations are on patented land consequently, gates will be erected and signs posted to prevent general public entry. Within the property, shafts and tunnels are blocked. Additional fencing is anticipated. Drill holes will be reclaimed as was done previously.
E. Trash will be hauled off site and disposed of at designated trash sites.
F. Alternative entires will be blocked with gates or permanently closed to the public with barries.

*"Toxic" means any chemical or biological or adverse characteristic of the material involved which could reasonably be expected to negatively affect ecological or hydrological systems or could be hazardous to the public safety and welfare.

23. Grading and soil redistribution.

A. Attach pre- and postmining contour cross sections, typical of regrading designs. Cross reference to page number here: _____.

B. Describe the method(s) of overburden replacement and stabilization and highwall elimination, including: (a) slope factors; (b) lift heights; (c) compaction; (d) terracing, etc., (e) also include testing procedures: See attached narrative

C. What method of spreading topsoil and subsoil or upper horizon material on the regraded area will be employed? Front end loaders, graders and hand work if any when necessary.

1. Indicate the approximate depth of soil cover after final surfacing _____ inches.
2. What tests will be performed to adequately evaluate the potential of the soil to successfully support intended revegetation? Original soil cover will be replaced wherever possible and reseeded. No testing should be necessary under these conditions.
3. What soil amendments or fertilizers will be needed as an aid to revegetation?
   Type: _____ Rate: _____
   Type: _____ Rate: _____
   Type: _____ Rate: _____
4. What additional surface preparations will be used? Describe (a) drainage, erosion and sediment control measures; (b) maximum slope characteristics; and (c) highwall reclamation.

3. (above) The seed and fertilizer mix recommended by BLM will be used.

4. (above) Natural drainages will be restored to the degree possible. Cross-slope ripping or scarifying will be employed on slopes as may be needed. Stable high walls will be left so as not to unduly disturb additional ground.

5. Describe methods which may be particularly applicable to waste disposal areas determined to be potential problem areas.

N/A

D. Describe plans for either leaving or reclaiming the roads and pads associated with the operation.

Useful roads will be left in. Roads specific to the operation will be ripped, contoured, and natural drainage re-established. Where surface is soil rather than rock, seeds will be planted.

24. Impoundments: All evaporation, tailings and sediment ponds; spoil piles, fills, pads and regraded areas shall be self-draining and nonimpounding when abandoned unless previously approved as an impounding facility by a lawful state or federal agency. In view of this, please describe the reclamation of all related areas in the operation and include pertinent items enumerated in C, 1-5 above.

All treated leach piles will be flushed with clean water until acceptible discharge is reached. The pregnant pond and the barren pond will be neutralized using standard neutralizing procedures soil piles, dumps, etc, will be self draining.

25. Revegetation plans:

A. What organization, agency or person will specifically be performing the revegetation? Operator or operator's agent.

B. Will the affected area be subject to livestock or wildlife grazing? ( ) Yes, (X) No. Will vegetation protection be needed to allow for a determination of the successful revegetation criteria outlined in the Mined Land Reclamation Act, Rule M-10(12)? ( ) Yes, (X) No. If yes, what measures will the operator take?

C. Will irrigation be used? ( ) Yes, (X) No. Type: _____. For how long? _____.

D. Test plots initiated during the early stages of mine development provide good bases from which a successful revegetation program can be adapted for later implementation. Will test plots be employed? ( ) Yes, (x) No. If yes, describe on an additional sheet(s) and attach. Cross reference page number here and show location on facilities map: _____.

E. Please attach a revegetation plan and schedule including:
   1. Species to be used.
   2. Rate of seed application/acre.
   3. Season to be planted.
   4. Seedbed preparation techniques.
   5. Planting location, slope face direction, variability, method of application, covering, etc.
   6. Mulch and fertilizer application, if used.

F. Describe any other maintenance procedures which may be used, if needed, to guarantee successful revegetation:

26. Please provide a reclamation schedule including:

   A. Estimated time for construction.
   B. Estimated time for interim reclamation.
   C. Estimated duration of the mining operation.
   D. A time table for the accomplishment of each major step in the reclamation plans. Attach the schedule and cross reference to the page number here: _____.

27. A surety guarantee must be provided for the mining operation (see Rule M-5 Mined Land Reclamation Act). In calculating this amount, the Division will consider the following major steps based on the information provided in this report:

   A. Clean up and removal of structures.
   B. Backfilling, grading and contouring.
   C. Topsoil and subsoil redistribution and stabilization.
   D. Revegetation (i.e., preparation, seeding, mulching, irrigation).
   E. Labor.
   F. Safety and fencing.
   G. Monitoring, and reseeding if necessary.

   To assist the Division, the operator may attach a list of costs and factors which would satisfy these areas. Substantiation of these factors, i.e., unit costs and how they are derived, should accompany the list. Cross reference the page number here: _____.

28. A request for a variance from specific commitments to Rule M-10 (Reclamation Standards) of the Mined Land Reclamation Act may be submitted with adequate written justification. If after presentation of information adequately detailing the situation, a determination is made that finds a portion of the rule inapplicable, a variance may be granted by the Division.

I hereby commit the applicant to comply with Rule M-10, "Reclamation Standards" in its entirety, as adopted by the Board of Oil, Gas and Mining on March 22, 1978.

The applicant will achieve the reclamation standards for the following categories as outlined in Rule M-10 on all areas of land affected by this mine, unless a variance is granted in writing by the Division.

Rule	Category of Commitment	Variance Requested?
M-10(1)	Land Use	
M-10(2)	Public Safety and Welfare	_____
M-10(3)	Impoundments	_____
M-10(4)	Slopes	_____
M-10(5)	Highwalls	_____
M-10(6)	Toxic Materials	_____
M-10(7)	Roads and Pads	_____
M-10(8)	Drainages	_____
M-10(9)	Structures and Equipment	_____
M-10(10)	Shafts and Portals	_____
M-10(11)	Sediment Control	_____
M-10(12)	Revegetation	_____
M-10(13)	Dams	_____
M-10(14)	Soils	_____
		_____

I believe a variance is justified on a site-specific basis for the previous subsections of Rule M-10 as indicated. A narrative statement explaining these concerns is attached.

STATE OF _____

COUNTY OF _____

I, _____, having been duly sworn depose and attest that all of the representations contained in the foregoing application are true to the best of my knowledge; that I am authorized to complete and file this application on behalf of the Applicant and this application has been executed as required by law.

Signed: _____

Taken, subscribed and sworn to before me the undersigned authority in my said county, this _____ day of _____, 19___.

Notary Public: _____

My Commission Expires: _____

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: ( ) Yes ( ) No

MINE MAPS

1. Maps must be clear and legible contour maps or recent aerial photos. The scale should be 1 inch = 500 feet to adequately show topographic features.

2. Map sheets should be of a reasonable size, not to exceed 48 inches on a side.

3. Maps must have a title block with:

   A. Map title.
   B. Name and address of permittee.
   C. Permit and amendment numbers.
   D. Annual report period.
   E. Scale, north arrow, contour interval, date of photography, etc.

4. All maps must show:

   A. Legal subdivisions.
   B. Permit area boundary clearly shown and labelled.
   C. Amendment areas clearly shown and labelled.
   D. Contour features.

5. The following features should all be clearly identified:

   A. Topsoil stockpiles (numbered and with volumes).
   B. Settling ponds and sediment control structures.
   C. Haul roads.
   D. Pits identified by location, name, number, etc.
   E. Ramps (numbered).
   F. Out-of-pit spoil dumps.
   G. All waste disposal sites including, but not limited to:
      1. Landfill sites.
      2. Carbonaceous waste dumps.
   H. Diversion ditches.
   I. Monitoring sites.